156 FERC ¶ 61,148
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Norman C. Bay, Chairman;
Cheryl A. LaFleur, Tony Clark,
and Colette D. Honorable.

Arizona Public Service Company — Docket Nos. ER10-2437-004, ER16-1363-000

ORDER ON MARKET POWER ANALYSIS AND MARKET-BASED RATE TARIFF CHANGES

(Issued August 31, 2016)

1. In this order, we allow Arizona Public Service Company (APS) to participate in the Energy Imbalance Market (EIM) administered by California Independent System Operator Corporation (CAISO) at market-based rates on the condition that it offer its units that are participating in the EIM at or below each unit's Default Energy Bid, as defined below. We also accept in part, subject to condition, and reject in part APS's proposed market-based rate tariff revisions to become effective on September 30, 2016, as requested.

I. Background

A. The EIM

2. The EIM enables entities with balancing authority areas outside of CAISO to take part in the real-time economic energy dispatch portion of the CAISO locational marginal price (LMP)-based electricity market alongside participants from within the CAISO market.[1] PacifiCorp's two balancing authority areas – PacifiCorp-East (PACE) and PacifiCorp-West – were the initial non-CAISO participants in the EIM, which was later expanded to include Nevada Power Company and Sierra Pacific Power Company (collectively, NV Energy).

[1] *Cal. Indep. Sys. Operator Corp.*, 147 FERC ¶ 61,231, *order on reh'g, clarification and compliance*, 149 FERC ¶ 61,058 (2014).

3. On November 19, 2015, the Commission issued an order allowing NV Energy and PacifiCorp (together, the Berkshire EIM Sellers) to participate in the EIM at market-based rates on the condition that the Berkshire EIM Sellers offer their units that are participating in the EIM at or below each unit's Default Energy Bid.[2]

4. APS and Puget Sound Energy, Inc. (Puget) intend to begin participation in the EIM effective October 1, 2016. At that time, the EIM footprint will include the CAISO market, as well as the APS, Puget, PACE, PacifiCorp-West, and NV Energy balancing authority areas (6-BAA EIM footprint).[3]

B. APS Filing

5. On April 8, 2016, APS requested authorization to transact at market-based rates in the EIM administered by the CAISO and submitted market power analyses in support of its request. Separately, on April 7, 2016, APS filed proposed revisions to its market-based rate tariff to reflect its participation in the EIM. Specifically, APS adds language: (1) stating that "APS may make sales under this tariff in all EIM markets for all periods in which such authority is granted by the Commission;" (2) noting that tariff restrictions on market-based rate sales into the APS balancing authority area do not apply to sales in the EIM; and (3) defining the term "Marginal Unit Cost." APS's revised tariff also includes the revised third-party ancillary services tariff language adopted in Order No. 819.[4]

II. Notice of Filings and Responsive Pleadings

6. Notice of APS's April 7, 2016 filing (Docket No. ER16-1363-000) was published in the *Federal Register*, 81 Fed. Reg. 22,073 (2016), and notice of APS's April 8, 2016

---

[2] *Nevada Power Company*, 153 FERC ¶ 61,206 (2015) (Berkshire EIM MBR Order), *order on reh'g*, 155 FERC ¶ 61,186 (2016) (Berkshire EIM MBR Rehearing Order). The Commission also conditioned the Berkshire EIM Sellers' participation on their facilitation of CAISO's enforcement of all internal constraints in the PacifiCorp and NV Energy balancing authority. The Berkshire EIM Sellers have since informed the Commission that they have turned over all data necessary to enforce constraints.

[3] On March 9, 2016, Puget and its market-based rate affiliates submitted a change in status filing in Docket No. ER10-2374-010 informing the Commission that Puget intends to begin participation in the EIM effective October 1, 2016.

[4] *See Third-Party Provision of Primary Frequency Response Service*, Order No. 819, FERC Stats. & Regs. ¶ 31,375, at P 70 (2015).

filing (Docket No. ER10-2437-004) was published in the *Federal Register*, 81 Fed. Reg. 22,069 (2016), with interventions and protests due on or before June 7, 2016.[5] Timely motions to intervene were filed in both dockets by the Imperial Irrigation District, Western Power Trading Forum, Navopache Cooperative, Inc., Southwest Public Power Agency (SPPA), Powerex Corp. (Powerex), and the Berkshire EIM Sellers. The Cities of Santa Clara, California and Redding, California and the M-S-R Public Power Agency jointly filed a timely motion to intervene in Docket No. ER16-1363-000. Substantive comments were filed in both dockets by Powerex and the Berkshire EIM Sellers. SPPA filed protests in both dockets.[6] On June 7, 2016, APS filed an answer to SPPA's April 27, 2016 protest. On June 28, 2016, APS responded to SPPA's June 7, 2016 protest.

III. Discussion

A. Procedural Matters

7. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2016), the timely, unopposed motions to intervene serve to make the entities that filed them parties to the proceedings in which they were filed.

8. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2016), prohibits an answer to a protest unless otherwise ordered by the decisional authority. We will accept APS's answers because they provide information that assisted us in our decision-making process.

B. Market Power

1. Indicative Screens and Delivered Price Test

9. As part of APS's market-power analysis, APS submitted the pivotal supplier and wholesale market share horizontal market power indicative screens for the combined 6-BAA EIM footprint to demonstrate that APS will not have the ability to exercise market power in the EIM. Further, APS notes that "where there is an existence of binding transmission constraints into an EIM [balancing authority area] that limit the

---

[5] Comments in Docket No. ER16-1363-000 (filed April 7, 2016) were originally due on April 28, 2016, which was extended until June 7, 2016 to align with the comment deadline in the related Docket No. ER10-2437-004 (filed April 8, 2016).

[6] SPPA filed two protests, one on April 27, 2016 in Docket ER16-1363-000 and a second one that was submitted in both dockets on June 7, 2016.

transfer capability into that [balancing authority area], a separate geographic market is assumed for analyzing market power in the EIM" and thus APS also submitted market power studies for the APS balancing authority area, as well as the CAISO market, and the NV Energy and PACE balancing authority areas.[7] APS represents that it passes both the pivotal supplier and wholesale market share screens for the combined 6-BAA EIM footprint, the CAISO market, and the NV Energy and PACE balancing authority areas. APS does not submit the indicative screens for the APS balancing authority area, but states that it fails the wholesale market share screen, and therefore submits a delivered price test (DPT) analysis for the APS balancing authority area.

10. APS submitted two scenarios of its DPT analysis to examine its potential market power in the APS balancing authority area – a "Base Schedule" scenario, which it likens to the Economic Capacity measure of a typical DPT, and a "RT Demand [real-time demand]" scenario, which it states is similar to the Available Economic Capacity measure of a typical DPT. Under both the Base Schedule and RT Demand scenarios, APS passes the pivotal supplier test in all seasons/load levels, but fails the market share test in 11 out of the 14 seasons/load levels.[8] Additionally, APS represents that the results of the Hirschman-Herfindahl Index (HHI) test for market concentration exceeds the Commission's 2,500 threshold in 10 of the 14 seasons/load levels in both the Base Schedule and RT Demand scenario.

11. APS concludes that it lacks the ability to exercise market power in the EIM balancing authority areas, with the exception of its own APS balancing authority area, and that the DPT results suggest that it could have market power in its own balancing authority area for the EIM, though not in all hours.[9]

2. CAISO Market Power Monitoring and Mitigation

12. APS argues that even if it is perceived to have market power in the EIM in certain limited circumstances within the APS balancing authority area, the market power

[7] APS studied the CAISO market and the NV Energy and PACE balancing authority areas because they are directly or indirectly interconnected to the APS balancing authority area. *See* APS April 8 Filing at 5.

[8] Under the Base Schedule scenario, APS's failures ranged from 40 to 66 percent. Under the RT Demand scenario, its failures ranged from 38 to 64 percent.

[9] APS April 8 Filing, Affidavit of Romkaew Broehm at P 99.

mitigation measures applied by the CAISO Department of Market Monitoring, along with recent and planned market monitoring enhancements are sufficient to prevent market power from being exercised in the EIM.[10] APS states that since the Berkshire EIM MBR Order, CAISO has developed two measures that resolve previous concerns regarding the sufficiency of CAISO's monitoring and mitigation in the EIM. First, in December 2015, the Commission accepted an EIM design revision concerning the Available Balancing Capacity functionality.[11] APS notes that this functionality was implemented in March 2016 and allows CAISO to automatically recognize and account for unbid capacity that an EIM Entity has available to maintain reliable operations in its own balancing authority area, even when the capacity is a non-participating EIM resource.

13. Second, APS states that CAISO is currently in the process of modifying its dynamic competitive path assessment to improve the prediction of congestion. According to APS, CAISO is working to address under-identified congestion that could occur due to constraints that do not bind in the predictive local market power mitigation run, but bind in the subsequent financially binding run.[12]

3. <u>Supplemental Analysis</u>

14. Additionally, APS submits a supplemental analysis purporting to show that APS's incentive and ability to increase EIM prices in its own balancing authority area is *de minimis*.[13] Specifically, APS argues that (1) "wholesale customers, who are not currently served by APS, have competitive supply options as well as transmission rights on the APS system that cover their load in the APS balancing authority area;" (2) "the amount of imbalance energy of these wholesale buyers is small when compared with APS's potential import capability available for the EIM operation;" and (3) "outside the

---

[10] APS April 8 Filing at 13.

[11] *Cal. Independent System Operator Corp.*, 153 FERC ¶ 61,305 (2015).

[12] APS April 8 Filing, Affidavit of Romkaew Broehm at n.114.

[13] In this supplemental analysis, APS represents that it evaluates whether it has the incentive or ability to raise EIM prices or foreclose the three non-affiliated load-serving entities (LSEs) in the APS balancing authority area from accessing alternative supplies for imbalance energy outside the APS balancing authority area.

EIM timeframe, APS continues to sell short-term power inside its balancing authority area at cost-based rates."[14]

4. Comments and Protests

15. SPPA argues that APS is presumed to have horizontal market power for imbalance energy within its balancing authority area, as shown by the market-share screen failures from APS's DPT. SPPA alleges that, even after considering imports from CAISO, NV Energy, and PACE, APS has a market share of 40 to 60 percent during the majority of the year.[15] SPPA also argues that APS's supplemental analysis fails to rebut the presumption of market power.

16. SPPA contends that the supplemental analysis is flawed because it ignores the imbalance needs of wholesale customers who currently purchase requirement service from APS's marketing affiliate. According to SPPA, adding these requirements customers to the analysis would nearly double the amount of non-affiliated load that APS has an incentive to exploit. SPPA adds that APS's market power should not be excused simply because its incentive to exercise market power is small.[16]

17. With respect to CAISO's mitigation, SPPA points out that the Commission already found that CAISO's market monitoring procedures were insufficient to address the Berkshire EIM Sellers' market power given the voluntary nature of the EIM, and that the same is true with respect to APS. SPPA notes that APS has no must-offer obligation and thus has the ability to physically withhold capacity. SPPA argues that this ability to physically withhold, combined with APS's high market share, would allow APS to selectively bid its units to earn supra-competitive profits at the expense of customers. SPPA adds that there is nothing in CAISO's tariff that would prevent this from occurring.

18. The Berkshire EIM Sellers comment that it is expected for a vertically-integrated utility to fail the market share screen in its home balancing authority area and argue that this is an insufficient basis to withhold market-based rate authority. They urge the Commission to "take a fresh look at the relative importance of the traditional market

---

[14] APS April 8 Filing, Affidavit of Romkaew Broehm at PP 10, 100-108.

[15] SPPA June 7 Protest at 4.

[16] *Id.* at 6.

share analysis in a seller's home balancing authority area for purposes of the EIM," noting that current and future EIM participants may all face this issue.[17]

19. The Berkshire EIM Sellers argue that the market share within the APS balancing authority area becomes relevant only when in-bound transmission constraints are binding such that imports cannot reach the balancing authority area to supply imbalance, adding that it is those specific circumstances that trigger CAISO's EIM market power mitigation. Berkshire EIM Sellers therefore argue that imposing mitigation during unconstrained intervals is a "solution without a problem." Further, they argue that mitigation through bid limitation does not address physical withholding in the EIM.[18]

20. Powerex encourages the Commission to take the unique circumstances of the EIM into account when applying its existing market-based rate and mitigation requirements to sellers seeking specific authorization to participate in the EIM. Powerex suggests that there may be new solutions capable of addressing the specific market power concerns that are presented by the EIM. According to Powerex, these concerns include a lack of supply diversity within EIM Entities' balancing authority areas and the inability of APS's customers to mitigate their exposure to imbalance charges.

5. Commission Determination

21. As noted above, APS studies the APS balancing authority area as a submarket of the EIM. APS does not submit indicative screens for the APS balancing authority area portion of the EIM, opting to concede that it does not pass the market share indicative screen in the APS portion of the EIM and submitting a DPT to study that area.[19] The Commission has stated that it will require that sellers submit the indicative screens or concede the presumption of market power before they file a DPT.[20] Thus, APS's

---

[17] Berkshire EIM Sellers Comments at 6.

[18] Berkshire EIM Sellers Comments at 7.

[19] APS April 8 Filing at 7. APS does not provide the results of an actual market share screen but states that it does not pass and conducts a DPT analysis instead.

[20] *Market-Based Rates for Wholesale Sales of Electric Energy, Capacity and Ancillary Services by Public Utilities*, Order No. 697, FERC Stats. & Regs. ¶ 31,252, at P 76, *clarified*, 121 FERC ¶ 61,260 (2007), *order on reh'g*, Order No. 697-A, FERC Stats. & Regs. ¶ 31,268, *clarified*, 124 FERC ¶ 61,055, *order on reh'g*, Order No. 697-B, FERC Stats. & Regs. ¶ 31,285 (2008), *order on reh'g,* Order No. 697-C, FERC Stats. & Regs. ¶ 31,291 (2009), *order on reh'g*, Order No. 697-D, FERC Stats. & Regs. ¶ 31,305 (2010), *aff'd sub nom. Mont. Consumer Counsel v. FERC,* 659 F.3d 910 (9th Cir. 2011),

(continued...)

decision to forego submitting the indicative screens and proceed to filing a DPT creates a rebuttable presumption that APS has market power in the APS balancing authority area portion of the EIM. As submitted, the results of APS's DPT, under either the Base Schedule or RT Demand scenario, show that APS will have market shares that exceed 20 percent in 11 of the 14 seasons/load levels studied. In addition, the DPTs filed by APS indicate that the results of the Hirschman-Herfindahl Index (HHI) test for market concentration exceeds the Commission's 2,500 threshold in 10 of the 14 seasons/load levels in both the Base Schedule and RT Demand scenario. Thus, we find that APS has failed to demonstrate that it will lack the ability to exercise market power in the EIM within the APS balancing authority area.

22. We disagree with APS's argument that even if it is perceived to have market power in the EIM in certain limited circumstances within the APS balancing authority area, the market power mitigation measures applied by the CAISO Department of Market Monitoring, along with recent and planned market monitoring enhancements, are sufficient to prevent market power from being exercised in the EIM. As discussed below, at this time we are unable to rely on CAISO's market monitoring and mitigation in the EIM as sufficient to address the market power concerns that have been raised in this instance.

23. As the Commission noted in the Berkshire EIM MBR Order, the EIM was developed and approved as a voluntary market and thus there is a possibility of withholding in the EIM.[21] The Commission further noted the potential for a market participant to strategically bid its resources such that the LMP does not reflect the economic unit, but instead reflects a unit with a potentially higher cost, to the benefit of the market participant's lower cost units.[22] The Commission explained that the concern over withholding is more troubling in an area that consists primarily of a single seller because there is not sufficient competition to limit the ability of a generator to successfully withhold capacity and drive up prices.[23] The Commission conditioned the Berkshire EIM Sellers' authorization to participate in the EIM at market-based rates on

cert. denied, 133 S. Ct. 26 (2012).

[21] Berkshire EIM MBR Order, 153 FERC ¶ 61,206 at P 47.

[22] *Id.* P 48.

[23] *Id*. P 49 ("[if] sufficient suppliers were available to compete in those areas of the EIM, . . . the ability of a generator, even in a voluntary market, to withhold capacity and drive up prices is less than in an area dominated primarily by a single supplier and limited transmission imports where withholding capacity may be a more successful strategy.").

the Berkshire EIM Sellers amending their MBR tariffs to specify that they must bid the units participating in the EIM at or below each unit's Default Energy Bid. The Commission found that, "while this condition does not directly address the ability to withhold, it does reduce the likely adverse effect on the market should withholding occur."[24] The Commission also noted that this condition alleviates concerns about under mitigation.[25]

24. On rehearing of the Berkshire EIM MBR Order, the Commission noted that it originally had two concerns with the effectiveness of CAISO's mitigation as applied to the EIM: (1) the physical withholding concern, which would not be addressed through CAISO's mitigation; and (2) concerns regarding CAISO having necessary data to enforce transmission constraints.[26] The Commission noted that, although the Berkshire EIM Sellers had turned over all the necessary data to enforce transmission constraints, the first concern (withholding) remained.[27] The Commission specifically found that the Available Balancing Capacity proposal, while it may provide transparency regarding the amount of capacity that an EIM Entity has available, "does not cure the physical withholding concern that served as the basis for the Commission's condition that the Berkshire EIM Sellers bid each unit at or below its Default Energy Bid."[28]

25. The same concerns as to the sufficiency of CAISO's monitoring and mitigation that the Commission expressed in the Berkshire EIM MBR Order are also present here. With respect to the dynamic competitive path assessment, the proposed changes to that process, which were filed with the Commission on June 21, 2016, have not been accepted

---

[24] *Id.* P 53.

[25] Id. P 47. We note that, when discussing CAISO's proposed changes to the dynamic competitive path assessment, APS references under mitigation caused by limitations in CAISO's current procedures for identifying congestion. See APS April 8 Filing at 11, Affidavit of Romkaew Broehm at n.114.

[26] Berkshire EIM MBR Rehearing Order, 155 FERC ¶ 61,186 at P 13.

[27] *Id.* We note that APS represents it has assigned its major internal transmission lines and interties between the APS balancing authority area and other EIM balancing authority areas as Energy Transfer System Resources, which APS notes will allow CAISO's Department of Market Monitoring to monitor internal transmission constraints and enforce local market power mitigation on APS. *See* APS April 8 Filing at 10; Affidavit of Romkaew Broehm at P 11; Affidavit of Ted Geisler at 4.

[28] Id. P 15.

by the Commission and, in any event, are not proposed to take effect until January 2017. [29] Therefore, we will not opine here on the effects of that proposal.

26. Thus, consistent with the Commission's determination in the Berkshire EIM MBR Order, we conclude that, at this time, CAISO's market monitoring and mitigation is insufficient to address the market power concerns in the EIM. Thus, we authorize APS's participation in the EIM at market-based rates on the condition that it offer its units that are participating in the EIM at or below each unit's Default Energy Bid, as detailed below. Such a condition should reduce the potential adverse effects on the market should withholding occur.

27. Further, we find that APS's supplemental market power analysis is insufficient to rebut the presumption of market power. In Order No. 697, the Commission stated that the contestable load analysis is flawed because, among other things, it does not consider control of generation through contracts, and is essentially a variation on the pivotal supplier screen, so it would not improve the market-based rate program's ability to establish a presumption of whether a seller has market power.[30] We find that APS's supplemental market power analysis is similar to a contestable load analysis. Therefore, we conclude that APS's supplemental analysis is a limited analysis that, at best, provides additional confirmation for the results of the pivotal supplier screen, which APS represents it passes in the APS balancing authority area.

[29] *Cal. Independent System Operator Corp.*, Docket No. ER16-1983-000 (filed June 21, 2016) (Tariff Amendments to Enhance Local Monitoring and Mitigation).

[30] Order No. 697, FERC Stats. & Regs. ¶ 31,252 at P 66.

28. With regard to the Berkshire EIM Sellers' request that the Commission "take a fresh look at the relative importance of the traditional market share analysis in a seller's home balancing authority area for purposes of the EIM," we do not believe there is a need for such an undertaking at this time and note the following. Potential EIM participants will *only* need to submit a market share screen of their home balancing authority areas when that balancing authority area is considered to be a *relevant submarket* in the EIM. As we have stated in the past, potential EIM participants must take into account whether the existence of frequently-binding transmission constraints create a separate relevant geographic submarket that should be studied.[31] We clarify that a potential EIM participant is permitted to demonstrate that there are no frequently binding transmission constraints that would limit imports into its home balancing authority area (or the balancing authority area where its generation is located) such that the home balancing authority area should not be deemed to be an EIM submarket itself, or to be within an EIM submarket. Having made such a demonstration, there would be no need for a seller to submit a separate market power analysis for its home balancing authority area. Conversely, where an EIM participant is unable to make this demonstration (or as in the instant case, has already assumed that its home balancing authority area is a submarket), the home balancing authority area must be studied as an EIM submarket, in addition to the entire EIM footprint as a whole as it will exist when the participant joins the EIM.

29. We recognize that it may be difficult to establish, *ex ante*, the absence of frequently-binding transmission constraints between balancing authority areas in the EIM, in part, because power flows and generation dispatch could change significantly, at least in some hours, after a previously non-participating balancing authority area joins the EIM. As new balancing authority areas join the EIM it is unclear the extent to which imbalance energy will flow among the balancing authority areas. However, after a balancing authority area has been in the EIM for a year or longer, a participant may be able to perform an *ex post* analysis as to whether there have been frequently-binding transmission constraints that would limit potential imports into its balancing authority area (or the balancing authority area where its generation is located), as well as whether there has been price separation. We will consider any such *ex post* analysis and may, if appropriate, deem that the evidence shows that the balancing authority area is not an EIM submarket. In such cases, where the seller has demonstrated that it will not have market power elsewhere in the EIM, we may remove any additional conditions on the participant's participation in the EIM at market-based rates, such as the condition that the participant bid its units in at or below its Default Energy Bid.

[31] *Nevada Power Company*, 151 FERC ¶ 61,131, at P 201 and n.384 (2015).

30. Since APS has not demonstrated a lack of frequently-binding constraints into its home balancing authority area, we consider it to be a relevant submarket in the EIM. As discussed above, APS has not demonstrated that it will lack the ability to exercise market power in the APS balancing authority area submarket of the EIM, and CAISO's market power monitoring and mitigation presently is not sufficient to prevent the exercise of market power in this submarket. Therefore, we will accept APS's market-based rate tariff revision to allow it to participate in the EIM subject to condition, as discussed below.[32] Specifically, we authorize APS to participate in the EIM at market-based rates based on the condition that it offer its units that are participating in the EIM at or below each unit's Default Energy Bid.

C. Mitigation

1. APS's Proposal

31. APS proposes its alternative bidding methodology as mitigation in the event that the Commission does not find that the combined results of APS's market power analysis and CAISO's monitoring and mitigation are adequate to address market power concerns in the APS balancing authority area. APS's alternative bidding methodology is based on each participating resource's marginal unit cost[33] plus applicable greenhouse gas charges, CAISO fees applicable to EIM transactions, and 10 percent of the sum of the aforementioned costs. APS states that its mitigation differs from the Default Energy Bid mitigation that was imposed on the Berkshire EIM Sellers.[34] APS states that the Default Energy Bid mitigation imposed on the Berkshire EIM Sellers may not allow APS to

---

[32] The Commission can revise a proposal filed under section 205 of the FPA as long as the filing utility accepts the change. *See City of Winnfield v. FERC*, 744 F.2d 871, 875-77 (D.C. Cir. 1984). The filing utility is free to indicate that it is unwilling to accede to the Commission's conditions by withdrawing its filing.

[33] APS defines Marginal Unit Cost as follows: "With respect to a sale in the EIM, all reasonably forecasted incremental generation, power purchase, and other related costs that APS would not otherwise incur if such sale is not entered into. Marginal Unit Cost may include, but not be limited to, costs associated with fuel, labor, variable operation and maintenance, start-up, shut-down, regulatory fees, and any applicable taxes or assessments." APS Proposed Tariff, §1.7.

[34] *See* Berkshire EIM MBR Order, 153 FERC ¶ 61,206 at PP 53-54 (requiring the Berkshire EIM Sellers to bid their participating units into the EIM at or below each unit's Default Energy Bid that is calculated by CAISO pursuant to two methodologies: the variable cost option or the negotiated rate option).

recover costs for all hours, especially the costs associated with fluctuating real-time gas prices.

2. Protests, Comments, and Answers

32. In both its April 28 and June 7 protests, SPPA argues that APS's alternative proposal is unjust, unreasonable, and unduly discriminatory. SPPA argues that APS has not justified its proposed departure from "the Commission's established policy in the EIM for sellers to bid at or below the [Default Energy Bid], calculated in accordance with the CAISO tariff, when market power concerns are present."[35] SPPA states that "all existing EIM Entities participating in the EIM bid at the Default Energy Bid when they have market power, just as generators within CAISO are required to bid at the Default Energy Bid during periods when market mitigation applies to them."[36] SPPA argues that it would be unduly discriminatory to transmission customers in the APS balancing authority area to allow APS to bid into the EIM under different rules. Additionally, SPPA argues that APS offers no supporting affidavit or evidence to support the claim that APS's actual costs would not be recoverable under the CAISO Default Energy Bid and why APS should be treated differently.[37]

33. SPPA also argues that, contrary to APS's representations, CAISO's method for calculating the Default Energy Bid is not limited to index-priced proxies for natural gas prices. One of the three options for calculating the Default Energy Bid, the variable cost option, uses a gas price index as input to the calculation for the Default Energy Bid. SPPA states that APS has provided no evidence as to why this option is not suitable. SPPA points out that, in any event, APS could choose from one of the other Default Energy Bid calculation methodologies, including the Negotiated Rate Option, under which APS could submit its own proposed Default Energy Bid, with supporting documentation. CAISO could either accept APS's Negotiated Rate Default Energy Bid or enter into negotiation with APS to revise.[38]

34. Finally, SPPA contends that APS's proposed bidding methodology is unjust and unreasonable because there is no mechanism to verify its bids. Specifically, SPPA argues

[35] SPPA April 27 Protest at 1; SPPA June 7 Protest at 9.

[36] SPPA June 7 Protest at 10.

[37] SPPA April 27 Protest at 3.

[38] SPPA April 27 Protest at 4; SPPA June 7 Protest at 11.

that APS also does not explain who – if anyone – would verify that its bids are indeed compliant with the alternative bidding methodology.

35. In its June 7, 2016 and June 28, 2016 answers, APS maintains that it will not be able to fully recover costs based on the Default Energy Bid due to potentially high intraday gas costs. According to APS, all three methods for calculating the Default Energy Bid approximate fuel costs in advance of the actual market conditions. APS states that fluctuating real-time gas prices is the single largest factor that could prevent it from being able to recover costs. Specifically, APS argues that the structure of its fuel contracts, along with limited gas storage in Arizona, may result in extreme differences in fuel costs from the regional index-based gas price (calculated the night before) and APS's actual gas costs when there are unforeseen intraday gas purchases, extra pipeline capacity needed, or premium pricing for over or under burning.[39] APS notes that both Transwestern Pipeline and El Paso Natural Gas Company have provisions in their tariffs that assess penalties when predetermined thresholds for unscheduled gas and gas overruns are exceeded.[40]

36. APS disagrees with the arguments that its alternative methodology is unduly discriminatory. Citing section 35.38(a) of the Commission's regulations, APS points out that the Commission has "encouraged companies to propose mitigation tailored to their particular circumstances."[41] APS argues that its alternative methodology is just and reasonable because it allows a greater possibility of full cost recovery.

37. Finally, APS disagrees with SPPA's claim that there is no mechanism to verify APS's bids. APS states that the CAISO tariff gives broad authority to CAISO to monitor and detect abuses in the market, which includes the ability to request cost support from an EIM participating entity.[42]

---

[39] APS June 7 Answer at 3; APS June 28 Answer at 2-4.

[40] APS June 28 Answer at 4.

[41] APS June 7 Answer at 3.

[42] APS June 7 Answer at 4.

38. The Berkshire EIM Sellers support APS's proposed alternative mitigation, echoing APS's argument that the Default Energy Bid is likely to be insufficient to compensate sellers in the region.[43] The Berkshire EIM Sellers state that they continuously recalculate their energy bids throughout the operational day in accordance with gas price fluctuations. They state that these changing bids may be artificially limited by Default Energy Bids based on prior day fuel prices, leading to inferior price signals and raising the possibility of a mismatch between dispatched fuel cost and the Default Energy Bid's fuel cost calculation. The Berkshire EIM Sellers also argue that APS's alternative methodology enhances market efficiency because it allows EIM participating resources to be dispatched in economic merit order and eliminates after-the-fact allocation of unrecovered gas cost uplifts.[44]

3. <u>Commission Determination</u>

39. Section 39.7 of the CAISO tariff provides three options to determine the Default Energy Bid: (1) LMP Option,[45] (2) Variable Cost Option, and (3) Negotiated Rate Option. Consistent with the Commission's determination in the Berkshire EIM MBR Order, we will require that APS's bids into the EIM be mitigated at or below each unit's Default Energy Bid, as calculated under the Negotiated Rate or the Variable Cost Options of the CAISO tariff.

40. Accordingly, as a condition of approving APS's participation in the EIM at market-based rates, we will require APS to submit a compliance filing within 30 days from issuance of this order proposing revised language for its market-based rate tariff to reflect this condition, i.e., that its EIM bids will be limited at all times to the Default Energy Bid calculated in accordance with the Variable Cost or Negotiated Rate Options provided in the CAISO tariff, and to remove references to its proposed Marginal Unit Cost mitigation methodology.

---

[43] Berkshire EIM Sellers Comments at 9.

[44] *Id.* at 9-10.

[45] Under the LMP Option, a generator's Default Energy Bid is the weighted average of the lowest quartile of validated LMPs set at the unit in the last 90 days when the unit was dispatched, subject to competitiveness screens. The Commission has previously determined that the LMP Option is not appropriate for the Berkshire EIM Sellers. *See* Berkshire EIM MBR Order, 153 FERC ¶ 61,206 at P 54 (stating that "the LMP Option is not necessarily reflective of costs and while its use is appropriate in local market power mitigation procedure in CAISO, its use is not appropriate where there is potentially structural market power across an entire balancing authority area").

41. We disagree with SPPA's argument that the Commission has "established policy" in the EIM regarding use of the Default Energy Bid and that it would be unduly discriminatory to transmission customers in the APS balancing authority area to allow APS to bid into the EIM under different rules. We emphasize that section 35.38(a) of the Commission's regulations allows sellers to propose mitigation tailored to their particular circumstances. However, CAISO's tariff already includes a mechanism – the Negotiated Rate Option – whereby sellers can propose to CAISO mitigation tailored to their particular circumstances. We will not circumvent this mechanism by approving an alternative mitigation before CAISO has had the opportunity to consider APS's proposal.

42. We do not agree with APS that the Negotiated Rate Option necessarily precludes APS from recovering costs associated with fluctuating real-time natural gas prices. Under the Negotiated Rate Option, APS would submit its proposed Default Energy Bid along with supporting information, calculations, and documentation for review. This information could include fuel costs, operation and maintenance costs, and any relevant formulas or calculations.[46] If accepted by CAISO, APS's fuel risk concerns would be mitigated and APS could receive the tailored mitigation it seeks, while minimizing verifiability concerns because APS would be required to submit documentation and justification to CAISO to support its Negotiated Rate Default Energy Bid. We note that the Commission specifically approved the Negotiated Rate Option as one method of calculating the Default Energy Bid, as well as approving the process for that option. Thus, if APS wants to propose an alternative method of calculating the Default Energy Bid, it is appropriate for APS to follow the process set forth in the CAISO tariff and approved by the Commission for such alternative proposals.

D. <u>Other Tariff Revisions</u>

43. APS revised its tariff to reflect the Commission's updated language regarding third-party provision of primary frequency response service adopted in Order No. 819.[47] We accept these proposed tariff revisions, to be effective September 30, 2016, as requested.

<u>The Commission orders</u>:

(A) APS's proposed tariff revisions are hereby accepted, in part, subject to condition, and rejected in part, to become effective on September 30, 2016, subject to

---

[46] CAISO Business Practice Manual for Market Instruments, section D.6.

[47] *See Third-Party Provision of Primary Frequency Response Service*, Order No. 819, FERC Stats. & Regs. ¶ 31,375 at P 70.

further modifications, as discussed in the body of this order.

(B) APS is hereby authorized to participate in the EIM at market-based rates on the condition that it offer its units that are participating in the EIM at or below each unit's Default Energy Bid, as discussed in the body of this order.

(C) APS is hereby directed to submit a compliance filing within 30 days with revised tariff language, as discussed in the body of this order.

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.